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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,019	12/31/2003	Sin Gu Kim	11037-198-999	3658

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MORGAN, LEWIS & BOCKIUS, LLP.  
2 PALO ALTO SQUARE  
3000 EL CAMINO REAL  
PALO ALTO, CA 94306

EXAMINER

TRINH, SONNY

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/751,019

**Applicant(s)**

KIM, SIN GU

**Examiner**

Sonny TRINH

**Art Unit**

2618

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claims 1-2** are rejected under 35 U.S.C. 102(b) as being anticipated by Miller (hereinafter “Miller”; U.S. Patent number 5,331,325).

Regarding **claim 1**, with reference to figures 1-3, 5-7 and descriptions, Miller discloses a remote control key for a vehicle (column 1 lines 7-22) comprising:

a gripping portion (figure 1, element 20);

a metallic blade portion projecting from the gripping portion (figure 1, element 16); and

a transmitter contained in the gripping portion and electrically connected to the metallic blade portion (claims 6, 8, column 2 line 37 to column 3 line 21).

Regarding **claim 2**, Miller further discloses that the remote control key of claim 1, further comprising a switch for activating the transmitter (figure 1, activation switch 14), wherein when the switch is activated, the transmitter transmits an electromagnetic signal through the metallic blade portion (claim 1, 6, 8, column 1 lines 13-22).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 3-4, 7-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller.

Regarding **claims 3-4**, Miller discloses the invention but does not disclose the static electricity shielding circuit disposed between the metallic blade portion and the transmitter module for shielding transmission of static electricity from the metallic blade portion to the transmitter module. However, shielding an electronic component from the environment in order to prevent undesirable radiation from the electronic components such as RF-radiation (Radio Frequency radiation) is well known and would have been obvious and well within the level of a person of ordinary skill in the art. The motivation for shielding the electronic components is to prevent undesirable radiation.

Regarding **claims 7-8**, Miller discloses that the transmitter is connected to the metallic blade portion by a connecting electrode (figures 4-5, wire 34, column 4 line 44 to column 5 line 8). Miller does not explicitly disclose that the connecting electrode is welded or soldered to the metallic blade portion. However, it would have been obvious and well within the level of a person of ordinary skill in the art to weld or to solder the electrode to the metal blade. The motivation for soldering is to ensure that the connection is secure and is less likely to fall apart under stress.

Regarding **claims 9-10**, Miller discloses the invention including the connection from the transmitter circuit to the metal blade of the key (figures 4-5, wire 34, column 4 line 44 to column 5 line 8). Miller does not explicitly disclose that the connecting electrode comprises a metallic ring; a raised lip is formed at the metallic blade portion; and the metallic ring is engaged on the raised lip. However, using raised lip with ring for connection is well known and would have been obvious and well within the level of a person of ordinary skill in the art. The motivation for using raised lip to connect to ring is to retain the ring in place (easier to solder due to lack of movement).

3. **Claims 5-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Kwon et al. (hereinafter "Kwon"; Patent Application Publication US 2002/0163768 A1).

Regarding **claims 5-6**, Miller discloses the invention but does not disclose that the static electricity shielding circuit comprises a pair of diodes, and the pair of diodes are reversely connected in parallel.

In an analogous art, Kwon discloses an electrostatic discharge protection circuit using diodes (abstract). With reference to figure 2 and description, Kwon further teaches that the static electricity shielding circuit comprises a pair of diodes, and the pair of diodes are reversely connected in parallel (figure 2, paragraphs [0008] – [0010] and [0023] – [0028]).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to incorporate the diode pair, as taught by Kwon, to the

Art Unit: 2618

system of Miller in order to provide electrostatic discharge protection with the clear advantage as cited in paragraph [0028] (in Kwon).


### CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonny TRINH whose telephone number is 571-272-7927. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward URBAN can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5/7/06

  
SONNY TRINH  
PRIMARY EXAMINER